OROVILLE FACILITIES RELICENSING REGULATIONS, AGENCIES, DEFINITIONS AND ACRONYMS

During the Oroville Facilities Relicensing process, words, acronyms and abbreviations that are unfamiliar may appear during meeting discussions and presentations, or in documents. Regulations, documents, participating agencies, a glossary of terms and a list of acronyms you may encounter during the course of the Oroville Relicensing process are provided below. The glossary is intended as an aid for purposes of the Oroville relicensing only and not intended, nor should it be construed as, a legally accurate definition of terms contained therein.

REGULATIONS

CEQA: *California Environmental Quality Act* – California legislation enacted the in 1970 (the year after the National Environmental Policy Act) that establishes state requirements providing for an interdisciplinary framework to consider environmental implications of public agency decision makers' actions. Requires development of an Environmental Impact Report, documenting impacts whenever a proposed project may cause significant adverse effects on the environment.

CFR: Code of Federal Regulations - a compilation of the general and permanent rules of the executive departments and agencies of the federal government as published in the Federal Register. The Code is divided into 50 titles that represent broad areas subject to federal regulation. Title 18 contains the Federal Energy Regulatory Commission's (FERC) regulations. FERC's regulations are cited as 18 CFR... (FERC)

CWA: *Clean Water Act* – Federal legislation the purpose of which is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters," whether on public or private land. It authorizes EPA to set water quality criteria for states to use when establishing water quality standards and prohibits the discharge of pollutants or fill into most waterways of the United States without a permit issued under the Environmental Protection Agency's National Pollutants Discharge Elimination System or Corps of Engineers Section 404 permit. Additionally, under Section 401 of the Clean Water Act, a licensee must obtain certification from the state verifying compliance with the Clean Water Act.

ECPA: *Electric Consumers Protection Act* – Passed in 1986, this legislation is one of several passed amending the Federal Power Act to change relicensing procedures and exemption procedures, and to require equal consideration of non-power resources in hydropower licensing, among other factors. ECPA brought about significant changes and imposed new requirements to both procedural and substantive aspects of project licensing and relicensing under the Federal Power Act (FPA). The FPA was amended to require FERC, in addition to water power development purposes to give equal consideration to energy conservation, fish and wildlife protection, enhancement and preservation of recreational opportunities, and other aspects of environmental quality.

ESA: Endangered Species Act – Federal legislation, the purpose of which is to provide a mechanism for protecting and conserving endangered and threatened species and protecting the ecosystems upon which they depend. In hydropower relicensing, the FERC must confer with the US Fish and Wildlife Service and/or National Marine Fisheries Service to determine whether the agency action is likely to jeopardize the continued existence of any endangered or threatened species or result in critical habitat destruction. There is also a similar State ESA.

FPA: *Federal Power Act* – Originally enacted by Congress in 1920 and subsequently amended, the legislation establishes the Federal Energy Regulatory Commission (FERC) and provides the FERC

with exclusive authority to license nonfederal waterpower projects on navigable waterways and federal lands. There are four sections of the FPA in particular that affect hydro relicensing: Sections 4(e), 10(a), 10(j) and 18.

- Section 4(e) issues mandatory conditioning authority to federal land management agencies for the public use of project land within federal jurisdiction.
- Section 10(a) requires FERC to give equal consideration to power and non-power values to provide the "best public use of the waterway."
- Section 10(j) requires that FERC include state and federal fish and wildlife agencies conditions in a new license, unless they are inconsistent with the requirements of the FPA.
- Section 18 requires FERC to mandate fish way construction if the US Fish & Wildlife Service or National Marine Fisheries Service prescribe so.

NEPA: *National Environmental Policy Act* – Federal legislation that establishes environmental policy for the nation. It provides an interdisciplinary framework for federal agencies to identify the potential for environmental damage and contains "action forcing" procedures to ensure that federal agency decision-makers take environmental factors into account. Requires development of an Environmental Impact Statement, documenting impacts whenever a proposed project may significantly affect the quality of the human environment.

DOCUMENTS

APEA: Applicant Prepared Environmental Assessment – The Energy Policy Act of 1992 authorized licensees to prepare environmental assessments (APEA) to initiate the NEPA process concurrent with the preparation of an application for relicense to FERC. This allows NEPA scoping to occur earlier in the process than under a traditional license process and provides FERC with information that better suits the agency's needs when carrying out NEPA and balancing responsibilities. This detailed environmental document forms the basis of the required NEPA document to be prepared by FERC and closely resembles an EIS, particularly with regard to the level of detail.

EIS: *Environmental Impact Statement* – Detailed statement required by NEPA when an agency proposes a major federal action significantly affecting the quality of the human environment. An EIS is a detailed statement that describes the environmental impacts of a proposed action and its alternatives.

EIR: *Environmental Impact Report* – Detailed report required by CEQA when a public agency proposes a major action significantly affecting the quality of the environment. An EIR is a detailed report describing and analyzing the significant effects of a project and discussing ways to mitigate or avoid the effects.

IIP: *Initial Information Package* – Document prepared by the licensee containing information introducing the relicensing program for a project and marking the beginning of a traditional FERC relicensing process. It contains basic information necessary to understand the project operations, impacts and benefits, including maps and project drawings. The IIP is typically designed to help those interested in participating in the relicensing of a project gain a basic understanding of the project and details the current understanding of the fish, wildlife, recreation, cultural, and aesthetic resources of the area.

SD1: *Scoping Document 1* – As part of the NEPA and CEQA processes, document that presents the applicant's initial assessment of the range of issues potentially impacted by a proposed action. The public may respond to the issues outlined in SD 1. For the Oroville Relicensing process SD 1,

presents a description of the project and an opportunity for the public to comment on the full scope of issues identified by the applicant and the public collaborative process to date.

FEDERAL AGENCIES

CEQ: Council on Environmental Quality – Agency of the President responsible for the oversight and development of the National Environmental Policy Act (NEPA) implementing regulations. In 1979, CEQ issued first set of binding regulations concerning the implementation of NEPA.

USEPA: *Environmental Protection Agency* – Federal Agency created in 1970. The mission of the U.S. Environmental Protection Agency is to protect human health and to safeguard the natural environment--air, water, and land--upon which life depends. The EPA has three roles in the NEPA process. EPA reviews all EIS documents for adequacy and environmental quality of the proposal, provides filing and noticing in the Federal Register, and serves as a cooperating agency concerning EPA environmental programs (water quality, air quality, solid waste, toxic substances, and other areas of pollution control).

FERC: Federal Energy Regulatory Commission – Commission composed of five members appointed by the President, supported by a staff that includes the Office of Hydropower Licensing, that is charged with reviewing and processing license and re-license applications and making recommendations to the Commission.

NMFS: *National Marine Fisheries Service* - The National Marine Fisheries Service (NMFS) or "NOAA Fisheries" is a part of the National Oceanic and Atmospheric Administration within the Department of Commerce. NMFS administers NOAA's programs that support the domestic and international conservation and management of living marine resources. NMFS provides services and products to support domestic and international fisheries management operations, fisheries development, trade and industry assistance activities, enforcement, protected species and habitat conservation operations, and the scientific and technical aspects of NOAA's marine fisheries program. NMFS administers the ESA as it relates to anadromous fish.

USACE: *U.S. Army Corps of Engineers* – Federal government's largest water resource development and management agency, regulates development in navigable waters and wetlands through its Section 404 (Clean Water Act) permitting process.

USFS: *United States Forest Service* – The U.S. Department of Agriculture Forest Service is a Federal agency that manages public lands in national forests and grasslands. The Forest Service is mandated by Congress to manage national forests for additional multiple uses and benefits, and for the sustained yield of renewable resources such as water, forage, wildlife, wood, and recreation. Multiple use means managing resources under the best combination of uses to benefit the American people while ensuring the productivity of the land and protecting the quality of the environment. The Forest Service is also the largest forestry research organization in the world, and provides technical and financial assistance to state and private forestry resource agencies.

USFWS: *United States Fish and Wildlife Service* - The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. Among its key functions, the Service enforces Federal wildlife laws, protects endangered species, manages migratory birds, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps foreign governments with their international conservation efforts. It also oversees the Federal Aid program that distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to State fish and wildlife agencies.

Indian Tribe – In reference to a proposal to apply for a license or exemption for a hydropower project, an Indian Tribe means a separate and distinct community or body of people of the same or similar aboriginal race historically inhabiting areas within the United States that:

- is united in a community under one leadership or government constituted by law or longstanding custom;
- inhabits a particular territory;
- is recognized by treaty with the United States, by federal statute, or by U.S. Secretary of the Interior; and
- whose legal rights as a tribe may be affected by the development and operation of the hydropower project proposed, as where the operation of the project could interfere with the management and harvest of anadromous fish or where the project works would be located within the tribe's reservation.

STATE AGENCIES

DFG: *Department of Fish and Game* - The mission of the Department of Fish and Game is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.

DPR: *Department of Parks and Recreation* – The mission of the Department of Parks and Recreation is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation. DPR is responsible for managing nearly 1.3 million acres, with over 280 miles of coastline; 625 miles of lake and river frontage; nearly 18,000 campsites; and 3,000 miles of hiking, biking, and equestrian trails.

DWR: *Department of Water Resources* – The mission of the Department of Water Resources is to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments. DWR is specifically responsible for design, construction, operation and maintenance of the State Water Project, which includes the Oroville Facilities. DWR is the licensee for the Oroville Facilities.

NAHC: *Native American Heritage Commission* - The Mission of the Native American Heritage Commission is to provide protection to Native American burials from vandalism and inadvertent destruction, provide a procedure for the notification of most likely descendants regarding the discovery of Native American human remains and associated grave goods, bring legal action to prevent severe and irreparable damage to sacred shrines, ceremonial sites, sanctified cemeteries and place of worship on public property, and maintain an inventory of sacred places.

SHPO: *State Historic Preservation Officer* – Within California, the SHPO is responsible for assisting federal and other state agencies with the implementation of laws designed to protect cultural resources. The SHPO is afforded an opportunity to comment on any actions that may affect a historic property.

SWRCB: *State Water Resources Control Board* – In 1967, the Porter-Cologne Act established the SWRCB and nine regional boards as the state agencies with primary authority over the regulation of water quality and allocation of appropriative surface water rights in California. SWRCB also implements Clean Water Act provisions within the State.

DEFINITIONS

acre-foot The amount of water required to cover one acre to a depth of one foot. An

acre-foot equals 326,851 gallons or 43,560 cubic feet. This volume measurement is used to describe a quantity of storage in a reservoir.

affecting Will or may have an effect on

afterbay A reservoir located immediately downstream from a powerhouse, sometimes

used to re-regulate flows to the river or stream.

aggradation The process of building up a surface by deposition.

allocation Amount of water guaranteed to a jurisdiction under an agreement or court

order.

alluvial Pertaining to or composed of alluvium, or deposited by a stream or running

water.

alluvium A general term for detrital deposits made by streams on riverbeds, floodplains,

and alluvial fans. The term applies to stream deposits of recent time.

anadromous Migrating up rivers from the sea to breed in freshwater, such as salmon and

steelhead.

ancillary services Services other than scheduled energy, which are required to maintain system

reliability and meet certain operating criteria. Such services include spinning, non-spinning, replacement reserves, regulation, voltage control, and black start

capability.

aquatic plant Plant that grows in water either floating on the surface, growing up from the

bottom of the body of water or growing under the surface of the water

aquifer A body of rock or soil that is sufficiently permeable to conduct groundwater and

to yield economically significant quantities of water to wells and springs

armored riverbed A riverbed from which easily removed sediment has been eroded leaving a

surface of cobbles or boulders. (may be artificially made)

average streamflow The rate at which water passes a given point in a stream based on an annual

average, usually expressed in cubic feet per second.

bank The rising ground bordering a stream or river. Banks are identified as right or

left as viewed facing downstream.

bankfull stage The elevation of the water surface of a stream flowing at channel capacity.

Discharge at this stage is called bankfull discharge.

bank storage Water absorbed and stored in the soil cover of the bed and banks of a

watercourse which is returned to the watercourse in whole or in part as the

water level falls.

base load The minimum electrical system load over a given period of time.

base river flow Also referred to as "minimum flow." The minimum river flow required to sustain

aquatic life. Often prescribed in FERC license articles.

basin A land area having a common outlet for its surface water runoff.

Basin Plan Regional Water Quality Control Board's Central Valley Regional Water Quality

Control Plan (CVRWQCB 1998) identifies beneficial uses, water quality objectives, numeric and narrative standards for the basin that includes the

Feather River watershed.

Beneficial Use Traditionally, the use of water for such benefits as agriculture, mining, power

development, and domestic water supply.

benthic region The bottom of a body of water. This region supports the benthos, a type of life

that not only lives upon, but also contributes to the character of the bottom.

benthos The plant and animal life whose habitat is the bottom of a sea, lake, or river

bioaccumulation The accumulation or concentration of compounds in higher concentrations in

plants and animals as you move up the food chain

biome The entire community of living organisms in a single major ecological region.

biota All the species of plants and animals occurring within a certain area

blackout The disconnection of the source of electricity from all the electrical loads in a

certain geographical area brought about by an emergency forced outage or other fault in the generation, transmission, or distribution system serving the

area.

breach A break or opening in a dam or levee.

brownout The partial reduction of electrical voltages. A brownout results in lights dimming

and motor-driven devices slowing down.

bus A conductor or group of conductors that serve as a common connection for two

or more circuits. In powerplants, buswork comprises the three rigid single-

phase connectors that interconnect the generator and the step-up

transformer(s).

bypass reach That section of a river from which water is removed to generate hydropower.

Water is often diverted from the river at the dam, transported through channels or penstocks downstream, and released back in the river at the powerhouse. Bypassed reaches can be as short as a few hundred feet to as long as several

miles.

bypass system Structure at a dam that provides a route for fish to move through or around the

dam without going through the turbines.

calibrate

To check, standardize or adjust systematically the graduations of a measuring instrument.

capacity

The production level for which an electrical generating unit or other electrical apparatus is rated, either by the user or manufacturer. (FERC) Capacity is also used synonymously with capability.

- Dependable capacity the load-carrying ability of a station or system under adverse conditions for a specified time period
- Installed capacity the total manufacturer rated capacities of such kinds of equipment as turbines, generators, condensers, transformers and other system components
- Peaking capacity the maximum sustainable capacity of generating equipment intended for operation only during the hours of highest daily, weekly, or seasonal loads
- Reserve generating capacity extra generating capacity available to meet peak or abnormally high demands for power and to generate power during scheduled or unscheduled outages

capillary fringe

The lower subdivision of the zone of aeration, immediately above the water table, in which the interstices are filled with water under pressure less than that of the atmosphere, being continuous with the water below the water table but held above it by surface tension.

channel

An open conduit either naturally or artificially created which periodically or continuously contains moving water; or forms a connecting link between two bodies of water. River, creek, run, anabranch, and tributary are some of the terms used to describe natural channels. Canal and floodway are two terms used to describe artificial channels.

circuit breaker

Any switching device that is capable of closing or interrupting an electrical circuit.

climatic year

The 12-month period used in collection of precipitation data. Climatic years begin July 1 and end the following June 30, and are designated by the calendar year in which the water year ends.

Communications Protocol

Provides a framework for coordination and dialogue among all parties involved in the pre-filing consultation and environmental review process for the Projects pursuant to the alternative administrative process authorized by the Federal Energy Regulatory Commission

confluence

The point where two streams meet

consumptive use

Non-reusable withdrawal of water where the water is evaporated, transpired by plants, incorporated into products or crops, or consumed by humans or animals.

coordinated operation

Generally, the operation of two or more interconnected systems to achieve greater reliability and economy. As applied to hydropower resources, the operation of a group of hydropower plants to obtain optimal power benefits with due consideration to all other uses.

coordination The practice by which two or more interconnected electric power systems

augment the reliability of bulk electric power supply by establishing planning and operating standards; by exchanging pertinent information regarding additions, retirements, and modifications to the bulk electric power supply system; and by joint review of these changes to assure that they meet the predetermined standards.

Stariuarus

crest (1) The highest stage or level of a flood wave as it passes a point. (2) The top of a

dam, dike, spillway, levee or weir, to which water must rise before passing over

the structure.

cumulative impact The impact on the environment which results from the incremental impact of an

action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (CEQ regulations

40 CFR 1508.7)

cycling Powerplant operation to meet the intermediate portion of the load (9 to 14 hours

per day).

dam A structure for impounding water.

dam failure Event characterized by the sudden, rapid, and uncontrolled release of impounded

water due to a breach in the dam.

dead storage That part of a reservoir that lies beneath the elevation of the bottom of the dam's

lowest outlet.

decommissioning The act of retiring or dismantling a dam.

degradation The general lowering of the surface of the land by erosive processes, especially

by the removal of material through erosion and transportation by flowing water.

delta The nearly flat alluvial tract of land at the mouth of a river, commonly forming a

triangular or fan-shaped plain. Most deltas are partly below water.

demand The rate at which electric energy is delivered to or by a system, part of a system,

or a piece of equipment. It is expressed in kilowatts, kilovoltamperes, or other suitable units at a given instant or averaged over any designated period of time.

The primary source of "demand" is the power-consuming equipment of the

customers.

design head The head at which the full gate of the turbine equals the manufacturer-rated

generator capacity.

designated Given formal statutory recognition, as in a federal or state river system.

direct effects Caused by the action and occur at the same time and place

discharge The rate of streamflow at a given instant in terms of volume per unit of time.

diversion The taking of water from a stream or other body of water into a canal, pipe,

reservoir or other conduit.

docket A formal record of a Federal Energy Regulatory Commission proceeding. Dockets

are available for inspection and copying by the public. Dockets for hydroelectric

projects can be accessed through the FERC CIPS website.

downstream slope The slope or face of the dam away from the reservoir water. This slope requires

some kind of protection from the erosive effects of rain or surface flow.

drawdown The lowering of a reservoir's surface elevation and water volume by releasing

(spilling or generating) the reservoir's water at a rate that is greater than the rate of

water flowing into the reservoir

earthen/earthfill dam An embankment dam in which more than 50% of the total volume is formed of

compacted fine-grained material. A homogeneous earthen dam is constructed of similar earthen material throughout. These are the most common type of dam because their construction involves using materials in the natural state, requiring

little processing

easement Limited right of ownership of one's land conveyed by deed to another for a special

purpose. The legal right to use the land of another for a specific purpose.

ecosystem The interacting system of a biological community and its geochemical and

geophysical environment.

effects Effects and impacts as used in the CEQ regulations are synonymous. Effects

include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or

cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes

that the effect will be beneficial.

efficiency The ratio of useful energy output to total energy input, usually expressed as a

percent

effluent A liquid discharged as waste from sewage works, storm sewer or from land after

irrigation

electric power

system Physically connected electric generating, transmission, and distribution facilities

operated as a unit under one control.

embankment A linear structure of earth material built to retain water or tailings, or to carry a

roadway or railroad

eminent domain Governmental power to take private property for a public use, usually government

acquisition of land for such purposes as parks, roads, schools, or public buildings;

requires payment of just compensation to land owner.

energy

Capacity of a physical system to do work as measured by the capability (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks.

energy conservation

Efficient use of energy resources. Energy conservation seeks to reduce energy invested per unit of product output, service performed, or benefit received through waste reduction.

environment

The sum of all external conditions and influences affecting the life, development, and, ultimately, the survival of an organism.

ephemeral stream

A stream or portion of a stream which flows briefly in direct response to precipitation in the immediate vicinity and whose channel is at all times above the water table

epilimnion

The uppermost layer of water in a lake, characterized by an essentially uniform temperature that is generally warmer than elsewhere in the lake and by a relatively uniform mixing caused by wind and wave action.

equal consideration

All values must be given the same level of reflection and thorough evaluation in determining that the project licensed is best adapted. In balancing developmental and non-developmental objectives, the FERC will consider the relative value of the existing power generation, flood control, and other potential developmental objectives in relation to present and future needs for improved water quality, recreation, fish, wildlife, and other aspects of environmental quality.

erosion

The wearing away of soil and rock by weathering, mass wasting, and the action of streams, glaciers, waves, wind, and underground water

eutrophication

The process whereby a body of water becomes highly productive of aquatic plants, such as algae, due to the input of large quantities of nutrients

evapotranspiration

That portion of precipitation returned to the atmosphere by a combination of evaporation from the soil and transpiration from plants

facilitator

An independent third party whose role is to help Participants reach lasting agreement (between as many of the Participants as possible on as many issues as possible.) A facilitator helps participants to identify goals, identify issues, develop and maintain critical paths, accomplish creative problem solving, and reach resolution of issues (facilitate and mediate as necessary). A facilitator also helps parties to stay organized and keep track of issues, work group progress, and assignments. The facilitator proposes agendas (for review and input by Participants) and focuses discussions and efforts.

FERC Boundary

The boundary encompassing the project facilities licensed by FERC including any lands required to operate and maintain the project. For the Oroville Facilities that includes the Lake Oroville, Oroville Dam, three powerplants (Edward Hyatt Powerplant, Thermalito Diversion Dam Powerplant, and Thermalito Pumping-Generating Plant), Thermalito Diversion Dam, the Feather River Fish Hatchery

and Fish Barrier Dam, Thermalito Power Canal, Thermalito Forebay and Forebay Dam, Oroville Wildlife Area, and the Thermalito Afterbay and Afterbay Dam, as well as a number of recreational facilities. The total acreage within the FERC boundary for the Oroville Facilities is approximately 41,000 acres.

Final Order

A final ruling by the FERC that concludes an action, decides some matter litigated by the parties, operates to divest some right, or completely disposes of the subject matter.

fish entrainment

Process by which fish are wounded or killed after being swept in and through a dam's turbines.

fish ladder

A series of ascending pools of running water constructed to enable fish to swim upstream around or over a dam

fish passage

Features of a dam that enable fish to move around, through, or over a dam without harm. Generally an upstream fish ladder or a downstream bypass system

flashboards

Temporary structures installed at the crest (top) of dams, gates, or spillways for the purpose of temporarily raising the water surface elevation, and hence the gross head of a hydroelectric generating plant, thus increasing power output. Normally, flashboards are removed either at the end of the water storage season or during periods of high streamflow, or for the purpose of temporarily increasing flood control.

flash flood

A flood that follows within a few hours (usually less than 6 hours) of heavy or excessive rainfall. A dam or levee failure, or the sudden release of water impounded by an ice jam, is also considered a flash flood

flood

The inundation of a normally dry area caused by high flow, or overflow of water from an established watercourse (such as a river, stream, or drainage ditch), or ponding of water at or near the point where the rain fell. This is a duration-type event with a slower onset than flash flooding, normally greater than 6 hours

flood management

(1) Reducing risk by building dams and/or embankments an/or altering the river channel. (2) Reducing flood risk by actions such as discouraging floodplain development, establishing flood warning systems, protecting urban areas, and allowing the most flood-prone areas to remain as wetlands

flood stage

Height at which a watercourse overtops its banks. Flood stage is usually higher than or equal to bankfull stage

floodplain

That portion of a river valley, adjacent to the channel, that is built of sediments deposited during flood events that becomes inundated with water when the river overflows its bank at flood stages.

floodway

1. That portion of a natural floodplain that is regularly inundated during the normal annual flood cycles of a river or stream. 2. A large-capacity channel constructed to divert floodwaters safely through or around populated areas.

flow augmentation

Water released from a storage reservoir to increase river flow, particularly to aid fish migration

forced outage The occurrence of a component failure or other condition which requires that a

generating unit be removed from service immediately, in contrast to a planned or

scheduled outage

forebay The impoundment immediately above a dam or hydroelectric plant intake structure

from which water is drawn into a tunnel or penstock for delivery to the

powerhouse. The term is applicable to all types of hydroelectric developments

(storage, run-of-river, and pumped storage).

free-flowing Non-dammed and non-channelized river or stream, as defined by the national Wild

and Scenic Rivers Act

fry The brief transitional stage of recently hatched fish that spans from absorption of

the yolk sac through several weeks of independent feeding.

gas

supersaturation The condition of higher levels of dissolved gases in water due to entrainment,

pressure increases, or heating.

gate A device that is moved across a waterway from an external position to control or

stop flow

generation The process of producing electric energy by transforming other forms of energy;

also, the amount of electric energy produced, usually expressed in kilowatt-hours.

generator A machine that converts mechanical energy into electrical energy.

gross generation The total amount of electric energy produced by a generating station or stations,

measured at the generator terminals.

ground water That part of the subsurface water that is in the zone of saturation, including

underground streams.

habitat The environment in which the life needs of a plant or animal are supplied.

head The vertical height of water in a reservoir above the turbine. The more head, the

more power that is exerted on the turbine by the force of gravity

head pond The reservoir behind a run-of-river dam

headwaters Streams at the source of a river

horsepower A unit for measuring the rate of work (or power) equivalent to 33,000 foot-pounds

per minute or 746 watts.

human environment Defined by NEPA regulations to include the natural and physical environment and

the relationship of people with that environment.

hydro Refers to electric power produced by flowing water

hydroelectric energy The production of electricity from kinetic energy in flowing water.

hydrograph A graph showing the water level (stage), flow, velocity, or other characteristics of water with respect to time. A stream hydrograph commonly shows rate of flow: a

ground water hydrograph shows water level or head.

hydroelectric plant A plant in which the turbine generators are driven by falling water.

hydrologic budget An accounting of the inflow to, outflow from, and storage in, a hydrologic unit (such

as a drainage basin, aquifer, soil zone, lake, reservoir, or irrigation project)

hydrologic cycle The natural pathway water follows as it changes between liquid, solid, and

gaseous states

hydrology The applied science concerned with the waters of the earth, their occurrences,

distribution, and circulation through the unending hydrologic cycle of evaporation,

transpiration, precipitation, infiltration, storage, and runoff

hydropower The harnessing of flowing water to produce mechanical or electrical energy.

hypolimnion The lowermost layer of water in a lake, typically characterized by an essentially

uniform temperature generally colder than elsewhere in the lake and often by

relatively stagnant or oxygen-poor water

impoundment A body of water such as a pond, formed by a dam, dike, floodgate or other barrier.

indirect effects Effects that are caused by the action and are later in time or farther removed in

distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and

other natural systems, including ecosystems.

initial license The first license issued for a water power project under either the Federal Water

Power Act of 1920 or the Federal Power Act of 1935.

instream flow The water flowing in a riverbed, which excludes water diverted from the river for

human use

instream right A water right in which water is kept in a stream and not removed and for which the

legally required "beneficial use" is identified as fish and wildlife, riparian habitat,

recreation, or some related protection.

instream use The use of water that does not require withdrawal or diversion from its natural

watercourse; for example, the use of water for navigation, recreation, and support

of fish and wildlife

intake The entrance to a conduit through a dam or a water facility

interruptible demands Those demands that, by contract, can be interrupted in the event of a capacity

deficiency on the supplying system.

intervenor A person, institution or organization admitted as a participant to a proceeding.

A map that delineates the areas that would be flooded by particular flood events inundation map The controlled application of water to arable lands to supply water requirements irrigation not satisfied by rainfall just compensation Payment for the full value of land or other property taken for public use by the government An artificial embankment built along a watercourse to protect land from flooding. If levee built of concrete or masonry the structure is referred to as a floodwall. Levees and floodwalls confine streamflow within a specified area to prevent flooding Authorization by the FERC to construct, operate, and maintain non-federal hydro license projects for a period up to 50 years. licensee Any person, State, or municipality licensed under the provisions of section 4 of this Act, and any assignee or successor in interest thereof (Federal Power Act, Sec. 3 (5)). The Department of Water Resources (DWR) is the licensee for Oroville Facilities FERC Project 2100. A licensee takes the lead in developing necessary information and preparing formal documents related to a project.

littoral zone Pertaining to the benthic environment or depth zone between high water and low

water.

live storage That part of a reservoir that lies above the elevation of the bottom of the dam's lowest outlet

The amount of electric power or gas delivered or required at any point on a system. Load originates primarily at the energy consuming equipment of the customers.

The ratio of average load to peak load for a specified period, usually expressed as a percentage.

A stream reach in which the water table adjacent to the stream is lower than the water surface in the stream, causing infiltration from the stream channel, recharging the groundwater aguifer and decreasing the stream flow

The principal river in a basin, as opposed to the tributary streams and smaller

rivers that feed into it

That portion of operating expenses consisting of labor, materials, and other direct and indirect expenses incurred for preserving the operating efficiency or physical condition of utility plants which are used for power production, transmission and distribution of energy.

maintenance outage The removal of a unit from service to perform work on specific components which could have been postponed past the next weekend

Those projects with a capacity greater than 1.5 MW major hydro project

load

load factor

losing stream

mainstem

maintenance

expenses

mandatory conditions Refers to the specific legal authority of resource agencies to impose conditions on

a FERC-licensed project.

metalimnion The horizontal layer of a thermally stratified lake in which the temperature

decreases rapidly with depth. The metalimnion lies between epilimnion and the

hypolimnion and includes the thermocline.

mill A monetary cost and billing unit used by utilities; it is equal to 1/1000 of the U.S.

dollar (equivalent to 1/10 of one cent)

minimum flow The minimum river flow required to sustain aquatic life. Often required at a

hydroelectric dam as a condition of the dam owner's operating license.

mitigation To make or become less intense or severe

mitigation measures Measures or activities designed to address specific resource impacts and where

possible, should eliminate or minimize those impacts.

multi-purpose dam

A barrier constructed for two or more purposes such as storage, flood control,

navigation, power generation, or recreation.

multi-purpose reservoir

A reservoir that can be used for more than one purpose, such as flood control,

hydroelectric power development, recreation, etc.

navigable waters Those parts of streams or other bodies of water over which Congress has

jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and which either in their natural or improved condition notwithstanding interruptions between the navigable parts of such streams or waters by falls, shallows, or rapids compelling land carriage, are used or suitable for use for the transportation of persons or property in interstate or foreign commerce, including therein all such interrupting falls, shallows, or rapids, together with such other parts of streams as shall have been authorized by

Congress for improvement by the United States or shall have been recommended

to Congress for such improvement after investigation under its authority

new license Any license, except an annual license issued under section 15 of the Federal

Power Act, for a water power project that is issued under the Federal Power Act

after the initial license for that project.

non-degradation A term in the Clean Water Act that indicates a standard of water quality for which

certain water bodies are to be managed so as to prevent any degradation

non-point source pollution

A term in the Clean Water Act also called "polluted runoff," water pollution

produced by diffuse land-use activities. Occurs when runoff carries fertilizer, animal wastes, and other pollution into rivers, streams, lakes, reservoirs, and other

bodies of water

nutrients Animal, vegetable, or mineral substance that nourishes individual organisms and

ecosystems.

off-peak energy Electric energy supplied during periods of relatively low system demands. Electric energy supplied during periods of relatively high system demands. on-peak energy original cost The cost of the property at the time it was first placed in public service. outage The period during which a generating unit, transmission line, or other facility is out of service Forced outage - the shutdown of a generating unit, transmission line or other facility, for emergency or other non-intentional reasons Scheduled outage - the shutdown of a generating unit, transmission line, or other facility, for inspection or maintenance, in accordance with an advance schedule overdraft Pumping of groundwater for consumptive use in excess of safe yield peak load The maximum demand for electrical power that determines the generating capacity required by a public utility. peaking operation A hydropower project operation that utilizes the generating equipment and reservoir impoundment capacity to store water and then provide power during daily, weekly, or seasonal periods of peak power demand A pipe used to convey water under pressure to the turbines of a hydroelectric penstock plant. perennial stream A stream that flows throughout the year permeability The capacity of a porous rock, sediment, or soil for transmitting a fluid; it is a measure of the relative ease of fluid flow under unequal pressure. point source pollution Pollution into bodies of water from specific discharge points such as sewer outfalls or industrial-waste pipes potable water Water of a quality suitable for drinking The rate at which work is done, The rate at which energy is transferred. The watt power is a typical unit of power measured in units of work per unit of time. powerhouse A structure at a hydroelectric power site that contains the turbine and generator. pre-filing consultation process Includes activities performed in order to address FERC and other statutory and regulatory requirements in preparing the Applications for New License for the

Projects. The pre-filing period continues up the act of formally filing the

Probable

Applications with the FERC

Maximum

Flood The largest flood considered reasonably possible at a site as a result of

meteorological and hydrological conditions

production

(electric) Act or process of producing electrical energy from other forms of energy; also, the

amount of electrical energy produced expressed in kWh

production

expenses Costs incurred in the production of electric power and conforming to the

accounting requirements of the Operation and Maintenance Expense Accounts of

the FERC Uniform System of Accounts.

public lands Such lands and interest in lands owned by the United States, as are subject to

private appropriation and disposal under public land laws. It shall not include

"reservations," as hereinafter defined (Federal Power Act, Sec. 3(1))

public review file Constitutes the formal written record of the pre-filing consultation process. Files

are maintained at the Department of Water Resources in Sacramento and the

Oroville Public Library (See Communications Protocol)

Public Trust

Doctrine A legal, court-developed doctrine by which a state can hold and manage certain

State-owned lands (including water in streams and the lands underlying navigable

waters) in trust for the citizens of that state.

ramp rate The maximum allowable rate of change in output from a powerplant. The ramp

rate is established to prevent undesirable effects due to rapid changes in loading

or, in the case of hydroelectric plants, discharge.

ramping The act of increasing or decreasing stream flows from a powerhouse, dam or

diversion structure.

rating A manufacturer's guaranteed performance of a machine, transmission line, etc.,

based on design features and test data. The rating will specify such limits and load voltage, temperature, frequency, etc. The rating is generally printed on a nameplate attached to equipment and is commonly referred to as the nameplate

rating, nameplate capacity, etc. (FERC)

reach The distance between two specific points delineating a portion of a stream or river

recharge To add water to an aquifer; also, the water added to an aquifer

regulated river A river for which the natural flow pattern is altered by a dam or dams

reliability The probability that a device will function without failure over a specified time

period or amount of usage.

relicensing The administrative proceeding in which FERC, in consultation with other Federal

and State agencies, decides whether and on what terms to issue a new license for

an existing hydroelectric project at the expiration of the original license.

reservation Means national forest, tribal lands embraced within Indian reservations, military

reservations, and other lands and interests in lands owned by the United States, and withdrawn, reserved, or withheld from private appropriation and disposal under the public land laws; also lands and interests in lands acquired and held for any public purposes; but shall not include national monuments or national parks

reservoir A pond, lake, tank or basin, natural or man-made, used for the storage, regulation

and control of water

resource agency A Federal, state, or interstate agency exercising administration over the areas of

flood control, navigation, irrigation, recreation, fish and wildlife, water resource management (including water rights), or cultural or other relevant resources of the state or states in which a project is or will be located. (FERC regulations - 18 CFR

4.30(b)(27)

riffle An expanse of shallow bottom extending across a stream bed, over which the

water flows swiftly with a wavy surface owing to submerged obstructions.

riparian Pertaining to or situated on the bank of a body of water, especially of a river.

riparian habitat The habitat found on or along stream banks and river banks.

river A natural stream of water emptying into an ocean, lake, or another river.

river basin The entire area drained by a river and its tributaries.

river mouth Point where a river ends by flowing into another body of water such as a lake,

ocean, or another river

rulemaking The authority delegated to administrative agencies by the Congress to make rules

that have the force of law. Frequently, statutory laws passed by Congress express broad terms of a policy and are implemented more specifically by

administrative rules, regulations, and practices.

run-of-river A hydropower project that uses the flow of a stream with little or no reservoir

capacity for storing water.

runner The rotating part of a turbine.

runoff Water in excess of that which can be absorbed by the ground and which runs off

the land into streams, rivers, or lakes

safe yield The rate of surface water diversion or groundwater extraction from a basin for

consumptive use over an indefinite period of time that can be maintained without

producing negative effects

salinization The accumulation of salt in soil or water to a harmful level

saltation Sediment transport in which particles are moved forward in a series of short leaps

or bounces, e.g. sand grains bounding downstream in a current not turbulent

enough to retain them in suspension.

sand A detrital particle smaller than a granule and larger than a silt grain, having a

diameter in the range of 1/16 to 2 mm.

Scenic River Defined in the national Wild and Scenic Rivers Act as "those rivers or sections of

rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads."

scoping An early and open public process that is part of the NEPA and CEQA process for

determining the issues to be addressed and identifying significant issues, and needed analysis related to a proposed action. Scoping invites participation by government agencies, tribes and other interested parties, identifying issues to be analyzed in depth, eliminating issues which are not significant, identifying other environmental review or consultation requirements, and identifying timing of

environmental review, planning and decision-making.

scour Concentrated erosive action, especially by stream water, as on the outside curve

of a bend; also, a place in a stream bed swept clear by a swift current.

screen analysis Determination of the particle-size distribution of a soil or sediment by measuring

the percentage of the particles that will pass through standard screens of various

sizes.

sediment Solid fragmental material that is transported and deposited by water, wind or ice,

chemically precipitated from solution, or secreted by organisms that form in layers

in loose unconsolidated form, e.g. sand, mud, till.

sediment flushing A method of reservoir operation in which the reservoir is temporarily lowered so

that fast-flowing water can erode accumulated sediments on the reservoir bed

sediment that passes a given point in a given period of time.

sediment sluicing A method of reservoir operation in which the reservoir is lowered at the start of the

flood season, speeding the movement of water through the reservoir and hence

reducing its capacity to trap sediment

selective withdrawal

structures Devices that permit releases from a reservoir over a wide range of depths,

temperatures, or water quality.

settlement agreement

A formal agreement that states agreed-to provisions, in this case for a new FERC

license. FERC encourages Applicants to prepare and file Settlement Agreements.

Most measures in Settlement Agreements are included in license Articles; however, FERC cannot include measures that are in conflict with the Federal Power Act or other federal statutes or beyond its regulatory jurisdiction.

sere A sequence of ecologic communities that succeed one another in development

from pioneer stage to climax community

service list In FERC terms, this is the official list of parties to a proceeding once a formal filing

has been made.

silt A detrital particle finer than fine sand and coarser than clay, commonly in the

range of 1/16 to 1/256 mm.

sluice A structure with a gate for stopping or regulating flow of water

smolt A juvenile salmon or steelhead migrating to the ocean and undergoing

physiological changes to adapt its body from a freshwater to a saltwater

environment

spawning The releasing and fertilizing of eggs by fish

Special Status Species

Species or subspecies listed under the Federal Endangered Species Act or the California Endangered Species Act as endangered or threatened, or by a Federal

or State Agency as a species of special concern, sensitive species, fully protected

species or management indicator species

spill Water passed over a dam without going through turbines to produce electricity.

Spill can be forced, when there is no storage capability and flows exceed turbine capacity, or planned, for example, when water is spilled to enhance juvenile fish

passage

spillway A structure over or through which excess or flood flows are discharged. If gates

control the flow, it is a controlled spillway, if the elevation of the spillway crest is

the only control, it is an uncontrolled spillway

spinning reserves The unused capacity in an electric system in generator units that are not in

operation but can be called upon for immediate use in case of system problems or

sudden load changes.

standby reserves The unused capacity in an electric system in machines that are not in operation

but that are available for immediate use if required.

storage reservoir Reservoir that has space for retaining water - from springtime snowmelts, for

example. Retained water is released as necessary for various uses, including

power production, fish passage, irrigation, and navigation

stratification Thermal layering of water in lakes and streams

stream

adjudication A judicial or administrative process to determine the extent and priority of the

rights of all persons to use water in a river system

stream bed The channel or bottom of a river or stream

stream gaging Measurement of the velocity of a stream of water in a channel or open conduit and

of the cross-sectional area of the water, in order to determine discharge

All the material that is transported by a stream, either as visible sediment or in stream load solution A specific portion of the length of a stream stream reach streamflow The rate at which water passes a given point in a stream, usually expressed in cubic feet per second (cfs). This term is often used interchangeably with discharge A hydroelectric plant that has reservoir storage capacity for power use. storage plant substation An assemblage of equipment for the purposes of switching and/or changing or regulating the voltage of electricity. tailrace Channel through which water is discharged from the powerhouse turbines tailwater The area of river below and directly influenced by the water discharged from a hydroelectric generator thermocline The plane in a thermally stratified lake located at the depth where temperature decreases most rapidly with depth. threatened species Any species which has the potential of becoming endangered in the near future transmission The movement or transfer of electric energy over an interconnected group of lines and associated equipment between points of supply and points at which it is transformed for delivery to consumers or is delivered to other electric systems. Transmission is considered to end when the energy is transformed for distribution to the consumer. The process by which water absorbed by plants is evaporated into the atmosphere transpiration from the plant surface. trash rack A mechanism found on a dam or intake structure that clears the water of debris before the water passes through the structure tributary Any stream that contributes water to another stream A measure of the extent to which water is stirred up or disturbed, as by sediment; turbidity opaqueness due to suspended sediment turbine A machine in which the kinetic energy of a moving fluid is converted to mechanical power by the reaction of the fluid with a series of buckets, paddles, or blades fitted around the circumference of a wheel or cylinder. underflow The movement of groundwater beneath the bed of a stream

The unsaturated zone lying between the earth's surface and the top of the

groundwater

vadose zone

water quality

The condition of water as determined by measurements of such factors as suspended solids, acidity, turbidity, dissolved oxygen, and temperature and by the presence of organic matter and/or chemical compounds

water quality criteria

The levels of pollutants that affect the suitability of water for a given use. Generally, water use classification includes: public water supply; recreation; propagation of fish and other aquatic life; agricultural use and industrial use.

water quality standard

A plan for water quality management containing four major elements: the use (recreation, drinking water, fish and wildlife propagation, industrial or agricultural) to be made of the water; criteria to protect those uses; implementation plans (for needed industrial-municipal waste treatment improvements) and enforcement plans, and an anti-degradation statement to protect existing high quality waters.

water rights

Priority claims to water. A legal right to use a specific amount of water from a natural or artificial body of surface water for general or specific purposes such as irrigation, mining, power, domestic use, or instream flow

watercourse

A natural, well-defined channel produced wholly or in part by a definite flow of water, continuous or intermittent.

watershed

All the land drained by a given river and its tributaries An entire drainage basin including all living and nonliving components of the system.

water table

The surface between the zone of saturation and the (vadose) zone of aeration; that surface of a body of unconfined ground water at which the pressure is equal to that of the atmosphere.

water year

The 12-month period for which the USGS reports surface water supplies. Water years begin October 1 and end the following September 30, and are designated by the calendar year in which the water year ends.

watt

The electrical unit of power.

wetlands

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (US Army Corps of Engineers and US EPA definition) Wetlands must have the following three attributes: (1) at least periodically, the land supports predominately hydrophytes; (2) the substrate is predominately un-drained, hydric soil; and (3) the substrate is on soil and is saturated with water or covered by shallow water at some time during the growing season of each year.

Wild River

Defined in the national Wild and Scenic Rivers Act as "those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and water unpolluted. These represent vestiges of primitive America."

ACRONYMS

ADA Americans With Disabilities Act

af Acre-foot, amount of water needed to cover one acre to a depth of one foot

AFRP Anadromous Fish Restoration Program

AGC (Automatic Generation Control) – The ability to control the megawatt output of a given powerhouse from remote site, such as the ISO, used to support California

electric regulation system

ALP (Alternative Licensing Procedure) – General term given to a number of non-

traditional approaches available to a licensee when applying to the Federal Energy Regulatory Commission to relicense a hydropower facility as described in Commission Order No. 596. ALPs may include collaborative teams, settlements, alternative dispute resolution and mediation while using a hybrid process, traditional licensing process, the Applicant Prepared Environmental Assessment process, or the use of third-party contracting. The Alternative Licensing Process (ALP) empowers the licensee and stakeholders to collaboratively design the consultation process for the relicensing effort. The ALP allows the licensee and stakeholders to jointly propose license terms and conditions often based on a negotiated settlement agreement that is submitted to the FERC with the license application. The ALP also combines the pre-filing consultation process with some of the FERC's NEPA requirements. The FERC regulations allow for an integration of pre-filing consultations with the environmental analysis, allowing the licensee to prepare an Applicant Prepared Environmental Assessment (APEA) to meet the requirements of NEPA. The draft APEA is filed with the FERC along with the license application. The ALP may include the development of settlement agreements between relicensing participants. A settlement agreement may detail a preferred project mitigation strategy that has been agreed upon by relicensing participants. Ideally, any settlement agreement would be included in the APEA and would be used by the FERC as a basis for the new license terms and conditions. The ALP encourages greater public involvement and provides an opportunity for the licensee and stakeholders to tailor the licensing process to address specific issues and streamline procedural compliance with multiple federal laws that are involved in the relicensing process. Atmospheres of cooperation, trust, and support for the alternative approach among relicensing participants is essential to the success of this relicensing effort.

APE

(Area of Potential Effects) – When evaluating potential cultural resources impacts (especially in the context of the National Historic Preservation Act), the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. The APE sets the geographic scope for the cultural resources studies. For study purposes the APE may be different from the FERC boundary.

BMP Best Management Practices

BOD Biological oxygen demand

Btu (British Thermal Unit) - A standard unit for measuring the quantity of heat

required to raise the temperature of 1 pound of water by 1 degree Fahrenheit

cfs (Cubic feet per second) - A measurement or water flow representing one cubic

foot of water (7.48 gallons) moving past a given point in one second. One cfs

equals about two acre-feet per day.

CNDDB California Natural Diversity Data Base

DO (Dissolved oxygen) – The amount of oxygen dissolved in water, in parts per

million (ppm) by weight, or in milligrams per liter (mg/l). Perhaps the most commonly employed measurement of water quality. Low DO levels can adversely affect fish and other aquatic life. The total absence of DO will lead to

the development of an anaerobic condition with the eventual development of odor

and esthetic problems.

EAP (Emergency Action Plan) - Predetermined plan of action to be taken to reduce the

potential for property damage and loss of life in an area affected by a dam break

or excessive spillway. Required for certain licensed FERC Projects.

FONSI (Finding of No Significant Impact) - a document by a Federal agency briefly

presenting the reasons why an action, not otherwise excluded (Sec. 1508.4), will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared. It shall include the environmental assessment or a summary of it and shall note any other environmental documents related to it (Sec 1501.7(a)(5)). If the assessment is included, the finding need not repeat any of the discussion in the assessment but

may incorporate it by reference. (CEQ regulations - 40 CFR 1508.13)

GIS Geographic Information System

HSI Habitat Suitability Indices

IFIM Instream Flow Incremental Methodology

KW (kilowatt) - a unit of power equal to 1,000 watts or 1.3414 horsepower. It is a

measure of electrical power or heat flow rate and equals 3,413 Btu per hour. An electric motor rated at one horsepower uses electric energy at a rate of about 3/4

kilowatt.

KWh (Kilowatt-hour) - the quantity of electrical energy, 1,000 watts, operating for one

hour. Electrical energy is commonly sold by the kilowatt hour.

MW (Megawatt) - A unit of electrical power equal to one million watts or one thousand

kilowatts

MWH (Megawatt-hour) - A unit of electrical energy that equals one megawatt of power

used for one hour

NEPA National Environmental Policy Act, as amended (42 U.S.C. 4321, et.seq.)

NGO (Non-governmental Organization) – Designation used to identify nationally or

locally recognized non-profit organizations typically dedicated to environmental conservation, protection and/or enhancement activities. Examples of NGOs

include The Sierra Club, The Audubon Society, Trout Unlimited and

Environmental Defense, among others.

SCORP State Comprehensive Outdoor Recreation Plan

SWP (State Water Project)- One of the largest multipurpose water and hydroelectric

projects in the nation. Since its construction in the 1960s and 1970s, the SWP has helped fuel California's economic growth, transporting more than 57 million acre-feet of water for use in homes, factories, businesses and farms throughout

the state. The Oroville Facilities are part of the State Water Project.